

INTERNATIONAL SEARCH REPORT

International Application No

PCT/DE 03/01005

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 B21K1/30

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 B21K B21J

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	DE 37 18 884 A (K LANGE FORSCHUNGSGESELLSCHAFT) 29 December 1988 (1988-12-29) column 2, line 6 - line 18 column 4, line 2 - line 18; figure 3	1,6,9, 16,19
A	EP 1 005 932 A (SMS EUMUCO GMBH) 7 June 2000 (2000-06-07) column 1, line 58 -column 2, line 23	1,16
A	EP 0 322 770 A (HITACHI POWDERED METALS ;MH CENTER LTD (JP)) 5 July 1989 (1989-07-05) figure 1	1,16
A	DE 100 21 189 A (HAUK STEFAN) 25 January 2001 (2001-01-25) the whole document	1

☐ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

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Date of the actual completion of the international search

4 July 2003

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14/07/2003

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Information on patent family members

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Patent document cited in search report		Publication date	Patent family member(s)	Publication date
DE 3718884	A	29-12-1988	DE 3718884 A1	29-12-1988
EP 1005932	A	07-06-2000	EP 1005932 A2	07-06-2000
			JP 2000153335 A	06-06-2000
EP 0322770	A	05-07-1989	JP 1170544 A	05-07-1989
			JP 1814336 C	18-01-1994
			JP 5025578 B	13-04-1993
			AU 2743288 A	29-06-1989
			DE 3884590 D1	04-11-1993
			DE 3884590 T2	03-02-1994
			EP 0322770 A2	05-07-1989
			KR 9301088 B1	15-02-1993
			US 4924690 A	15-05-1990
DE 10021189	A	25-01-2001	DE 10021189 A1	25-01-2001